| Section V-B - FM BROADCAST ENGINEERING DATA | FOR COMMISSION USE ONLY<br>File No. _____<br>ASB Referral Date _____<br>Referred by _____ |
|---|---|

Name of Applicant

He's Alive, Inc.

| Call letters *(if issued)* | Is this application being filed in response to a window? ☐ Yes ☒ No |
|---|---|
| NEW | If Yes, specify closing date: N/A |

Purpose of Application: *(check appropriate boxes)*

- [x] Construct a new (main) facility
- [ ] Construct a new auxiliary facility
- [ ] Modify existing construction permit for main facility
- [ ] Modify existing construction permit for auxiliary facility
- [ ] Modify licensed main facility
- [ ] Modify licensed auxiliary facility

If purpose is to modify, indicate below the nature of change(s) and specify the file number(s) of the authorizations affected.

- [X] Antenna supporting-structure height
- [X] Antenna height above average terrain
- [X] Antenna location
- [ ] Main Studio location
- [x] Effective radiated power
- [ ] Frequency
- [ ] Class
- [x] Other *(Summarize briefly)*

To amend BPED-900606MC

File Number(s) BPED-900606MC

1. Allocation:

| Channel No. | Principal community to be served: City | County | State |
|---|---|---|---|
| 201 | Murrysville | Allegheny | PA |

Class *(check only one box below)*

- [x] A
- [ ] B1
- [ ] B
- [ ] C3
- [ ] C2
- [ ] C1
- [ ] C
- [ ] D

2. Exact location of antenna.

(a) Specify address, city, county and state. If no address, specify distance and bearing relative to the nearest town or landmark.

2.8 km, Southwest of Intersection between Rt. 380 & Rt. 286.

(b) Geographical coordinates (to nearest second). If mounted on element of an AM array, specify coordinates of center of array. Otherwise, specify tower location. Specify South Latitude or East Longitude where applicable; otherwise, North Latitude or West Longitude will be presumed.

| Latitude | Longitude |
|---|---|
| 40° 28' 51" | 79° 43' 26" |

3. Is the supporting structure the same as that of another station(s) or proposed in another pending application(s)? ☐ Yes ☒ No

If Yes, give call letter(s) or file number(s) or both. N/A

If proposal involves a change in height of an existing structure, specify existing height above ground level including antenna, all other appurtenances, and lighting, if any.

N/A

SECTION V-B – FM BROADCAST ENGINEERING DATA (Page 2)

4. Does the application propose to correct previous site coordinates? ☐ Yes ☒ No
If Yes, list old coordinates.

| Latitude ° ' " | Longitude ° ' " |
|---|---|

5. Has the FAA been notified of the proposed construction? ☐ Yes ☒ No
If Yes, give date and office where notice was filed and attach as an Exhibit a copy of FAA determination, if available.

Exhibit No. VB-1A & VB-1B

Date _____ Office where filed Eastern Region

6. List all landing areas within 8 km of antenna site. Specify distance and bearing from structure to nearest point of the nearest runway.

| | Landing Area | Distance (km) | Bearing (degrees True) |
|---|---|---|---|
| (a) | Pittsburgh-Monroevil | 4.75 | 230° |
| (b) | None | | |

7. (a) Elevation: *(to the nearest meter)*

(1) of site above mean sea level: 365.8 meters

(2) of the top of supporting structure above ground (including antenna, all other appurtenances, and lighting, if any); and 34 meters

(3) of the top of supporting structure above mean sea level [(aX1) + (aX2)] 399.8 meters

(b) Height of radiation center: *(to the nearest meter)* H = Horizontal; V = Vertical

(1) above ground – meters (H)
30 meters (V)

(2) above mean sea level [(aX1) + (bX1)] – meters (H)
395.8 meters (V)

(3) above average terrain – meters (H)
73.8 meters (V)

8. Attach as an Exhibit sketch(es) of the supporting structure, labelling all elevations required in Question 7 above, except item 7(b)(3). If mounted on an AM directional-array element, specify heights and orientations of all array towers, as well as location of FM radiator.

Exhibit No. VB-2

9. Effective Radiated Power:
(a) ERP in the horizontal plane – kw (H-) 0.1995 kw (V-)

(b) Is beam tilt proposed? ☐ Yes ☒ No

If Yes, specify maximum ERP in the plane of the tilted beam, and attach as an Exhibit a vertical elevational plot of radiated field.

Exhibit No. N/A

N/A kw (H-) N/A kw (V-)

-Polarization

10. Is a directional antenna proposed? [x] Yes [ ] No

If Yes, attach as an Exhibit a statement with all data specified in 47 C.F.R. Section 73.316, including plot(s) and tabulations of horizontally and vertically polarized radiated components in terms of relative field. Exhibit No. VB-11

11. Will the main studio be located within the 70 dBu or 3.16 mV/m contour? [x] Yes [ ] No

If No, attach as an Exhibit justification pursuant to 47 C.F.R. Section 73.1125. Exhibit No. N/A

12. Are there: (a) within 60 meters of the proposed antenna, any proposed or authorized FM or TV transmitters, or any nonbroadcast *(except citizens band or amateur)* radio stations; or (b) within the blanketing contour, any established commercial or government receiving stations, cable head-end facilities, or populated areas; or (c) within ten (10) kilometers of the proposed antenna, any proposed or authorized FM or TV transmitters which may produce receiver-induced intermodulation interference? [x] Yes [ ] No

If Yes, attach as an Exhibit a description of any expected, undesired effects of operations and remedial steps to be pursued if necessary, and a statement accepting full responsibility for the elimination of any objectionable interference (including that caused by receiver-induced or other types of modulation) to facilities in existence or authorized or to radio receivers in use prior to grant of this application. *(See 47 C.F.R. Sections 73.315(b), 73.316(d) and 73.318.)* Exhibit No. 3

13. Attach as an Exhibit a 7.5 minute series U.S. Geological Survey topographic quadrangle map that shows clearly, legibly, and accurately, the location of the proposed transmitting antenna. This map must comply with the requirements set forth in Instruction D for Section V. Further, the map must clearly and legibly display the original printed contour lines and data as well as latitude and longitude markings, and must bear a scale of distance in kilometers. Exhibit No. VB-4

Murrysville, PA

14. Attach as an Exhibit *(name the source)* a map which shows clearly, legibly, and accurately, and with the original printed latitude and longitude markings and a scale of distance in kilometers: Exhibit No. VB-5

Pittsburgh, PA

(a) the proposed transmitter location, and the radials along with profile graphs have been prepared;

(b) the 1 mV/m predicted contour and, for noncommercial educational applicants applying on a commercial channel, the 3.16 mV/m contour; and

(c) the legal boundaries of the principal community to be served.

15. Specify area in square kilometers (1 sq. mi. = 2.59 sq. km.) and population (latest census) within the predicted 1 mV/m contour.

Area 138 sq. km. Population 81,308

16. Attach as an Exhibit a map *(Sectional Aeronautical charts where obtainable)* showing the present and proposed 1 mV/m (60 dbu) contours. Exhibit No. VB-6

Enter the following from Exhibit above:

Gain Area 9.5 sq. mi.

Loss Area 42.8 sq. mi.

Percent change (gain area plus loss area as percentage of present area) 47.2 %.

If 50% or more this constitutes a major change. Indicate in question 2(c), Section I, accordingly.

17. For an application involving an auxiliary facility only, attach as an Exhibit a map *(Sectional Aeronautical Chart or equivalent)* that shows clearly, legibly, and accurately, and with latitude and longitude markings and a scale of distance in kilometers:

Exhibit No. N/A

(a) the proposed auxiliary 1 mV/m contour; and

(b) the 1 mV/m contour of the licensed main facility for which the applied-for facility will be auxiliary. Also specify the file number of the license. See 47 C.F.R. Section 73.1675. (File No.: N/A )

18. Terrain and coverage data *(to be calculated in accordance with 47 C.F.R. Section 73.313).*

Source of terrain data: *(check only one box below)*

[x] Linearly interpolated 30-second database [ ] 7.5 minute topographic map

(Source: NGDC )

[ ] Other *(briefly summarize)*

map.

| Radial bearing (degrees True) | Height of radiation center above average elevation of radial from 3 to 16 km (meters) | Predicted Distances to the 1 mV/m contour (kilometers) |
|---|---|---|
| 0 | 103 | 5.3 |
| 45 | 42 | 4.4 |
| 90 | 33 | 4.5 |
| 135 | 50 | 4.5 |
| 180 | 79 | 8.7 |
| 225 | 94 | 9.5 |
| 270 | 93 | 7.9 |
| 315 | 100 | 6.0 |

**Allocation Studies**

*(See Subpart C of 47 C.F.R. Part 73)*

19. Is the proposed antenna location within 320 kilometers (199 miles) of the common border between the United States and Mexico? [ ] Yes [X] No

If Yes, attach as an Exhibit a showing of compliance with all provisions of the Agreement between the United States of America and the United Mexican States concerning Frequency Modulation Broadcasting in the 88 to 108 MHz band.

Exhibit No. N/A

20. Is the proposed antenna location within 320 kilometers of the common border between the United States and Canada? [x] Yes [ ] No

If Yes, attach as an Exhibit a showing of compliance with all provisions of the Working Agreement for Allocation of FM Broadcasting Stations on Channels 201-300 under The Canada-United States FM Agreement of 1947. Exhibit No. VB-7

21. If the proposed operation is for a channel in the range from channel 201 through 220 (88.1 through 91.9 MHz), or if this proposed operation is for a class D station in the range from Channel 221 through 300 (92.1 through 107.9 MHz), attach as an Exhibit a complete allocation study to establish the lack of prohibited overlap of contours with other U.S. stations. The allocation study should include the following: See Engineering Statement- Table I, Table IV Exhibit No. VB-8

(a) The normally protected interference-free and the interfering contours for the proposed operation along all azimuths.
(b) Complete normally protected interference-free contours of all other proposals and existing stations to which objectionable interference would be caused.
(c) Interfering contours over pertinent arcs of all other proposals and existing stations from which objectionable interference would be received.
(d) Normally protected and interfering contours over pertinent arcs, of all other proposals and existing stations, which require study to show the absence of objectionable interference.
(e) Plot of the transmitter location of each station or proposal requiring investigation, with identifying call letters, file numbers and operating or proposed facilities.
(f) When necessary to show more detail, an additional allocation study will be attached utilizing a map with a larger scale to clearly show interference or absence thereof.
(g) A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire Exhibit(s). Sufficient lines should be shown so that the location of the sites may be verified.
(h) The name of the map(s) used in the Exhibit(s).

22. With regard to any stations separated by 53 or 54 channels (10.6 or 10.8 MHz) attach as an Exhibit information required in 1/ *(separation requirements involving intermediate frequency (i.f.) interference)*. Exhibit No. N/A

23.(a) Is the proposed operation on Channel 218, 219, or 220? [ ] Yes [x] No

(b) If the answer to (a) is yes, does the proposed operation satisfy the requirements of 47 C.F.R. Section 73.207? [ ] Yes [ ] No N/A

(c) If the answer to (b) is yes, attach as an Exhibit information required in 1/ regarding separation requirements with respect to stations on Channels 221, 222 and 223. Exhibit No. N/A

(d) If the answer to (b) is no, attach as an Exhibit a statement describing the short spacing(s) and how it or they arose. Exhibit No. N/A

1/ A showing that the proposed operation meets the minimum distance separation requirements. Include existing stations, proposed stations, and cities which appear in the Table of Allotments; the location and geographic coordinates of each antenna, proposed antenna or reference point, as appropriate; and distance to each from proposed antenna location.

(e) If authorization pursuant to 47 C.F.R. Section 73.215 is requested, attach as an Exhibit a complete engineering study to establish the lack of prohibited overlap of contours involving affected stations. The engineering study must include the following:

Exhibit No. N/A

(1) Protected and interfering contours, in all directions (360°), for the proposed operation.
(2) Protected and interfering contours, over pertinent arcs, of all short-spaced assignments, applications and allotments, including a plot showing each transmitter location, with identifying call letters or file numbers, and indication of whether facility is operating or proposed. For vacant allotments, use the reference coordinates as transmitter location.
(3) When necessary to show more detail, an additional allocation study utilizing a map with a larger scale to clearly show prohibited overlap will not occur.
(4) A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire exhibit(s). Sufficient lines should be shown so that the location of the sites may be verified.
(5) The official title(s) of the map(s) used in the exhibits(s).

24. Is the proposed station for a channel in the range from Channel 201 to 220 (88.1 through 91.9 MHz) and the proposed antenna location within the distance to an affected TV Channel 6 station(s) as defined in 47 C.F.R. Section 73.525?

[X] Yes [ ] No

If Yes, attach as an Exhibit either a TV Channel 6 agreement letter dated and signed by both parties or a map and an engineering statement with calculations demonstrating compliance with 47 C.F.R. Section 73.525 for each affected TV Channel 6 station.

Exhibit No. VB-9A & VB-9B & 9C

See Engineering Statement- Table II & Table V

25. Is the proposed station for a channel in the range from Channel 221 to 300 (92.1-107.9 MHz)?

[ ] Yes [X] No

If Yes, attach as an Exhibit information required in 1/. *(Except for Class D (secondary) proposals.)*

Exhibit No. N/A

26. Environmental Statement *(See 47 C.F.R. Section 1.1301 et seq.)*

Would a Commission grant of this application come within Section 1.1307 of the FCC Rules, such that it may have a significant environmental impact?

[ ] Yes [X] No

If you answer Yes, submit as an Exhibit an Environmental Assessment required by Section 1.1311.

Exhibit No. N/A

If No, explain briefly why not. The proposed site is categorically excluded from environmental processing under the provisions of Section 1.1306 of the FCC Rules and Regulations.

**CERTIFICATION**

See Exhibit VB-10

I certify that I have prepared this Section of this application on behalf of the applicant, and that after such preparation, I have examined the foregoing and found it to be accurate and true to the best of my knowledge and belief.

| Name *(Typed or Printed)* | Relationship to Applicant *(e.g., Consulting Engineer)* |
|---|---|
| LALIN FONSEKA | Telecommunications Consultant |
| Signature: lalinfonseka | Address *(Include ZIP Code)*: LECHMAN & JOHNSON, INC. 9500 Annapolis Road, Suite C-1 Lanham, Maryland 20706 |
| Date: 5/16/91 | Telephone No. *(Include Area Code)*: (301) 577-0800 |

ENGINEERING STATEMENT

HE'S ALIVE, INC.
FURTHER AMENDMENT TO APPLICATION FOR A NEW
NON COMMERCIAL FM STATION
MURRYSVILLE, PENNSYLVANIA

Channel 201A 199.5 Watts (MAX) DA 74 Meters

May 16, 1991

LECHMAN & JOHNSON, INC.

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**HE'S ALIVE, INC.**
**FURTHER AMENDMENT TO APPLICATION FOR A NEW**
**NON COMMERCIAL FM STATION**
**MURRYSVILLE, PENNSYLVANIA**

**Channel 201A 199.5 Watts (MAX) DA 74 Meters**

**ENGINEERING STATEMENT**

**HE'S ALIVE, INC.**
**FURTHER AMENDMENT TO APPLICATION FOR A NEW**
**NON COMMERCIAL FM STATION**
**MURRYSVILLE, PENNSYLVANIA**

**Channel 201A 199.5 Watts (MAX) DA 74 Meters**

This Engineering Statement is submitted in support of further amendment to application by He's Alive, Inc., seeking authorization to construct a new non commercial FM Broadcast Station to serve Murrysville, Pennsylvania. The proposal for this facility requests operation on Channel 201A (88.1 MHz), with an effective radiated power (ERP) of 199.5 watts vertically polarized and an effective antenna height above average terrain (HAAT) of 74 meters.

The applicant proposes to operate from a transmitter site located 2.8 km southwest of intersection between Route 380 and Route 286. It is proposed to side-mount an FM antenna on a new tower. Below are the geographic coordinates of the tower site:

North Latitude: 40° 28' 51"
West Longitude: 79° 43' 26"

These coordinates were taken from a 7.5 minute series topographic quadrangle map published by the U.S. Geological Survey. The ground elevation at the proposed site is 1200 feet (365.8 m) above mean sea level.

Table I is a study of all co-channel and adjacent channel allocations, applications and licensed FM stations pertinent to operation on Channel 201 at the proposed site.

Table II list all Channel 6 television stations pertinent to the proposed FM operation on Channel 201.

Table III includes the pertinent data used to predict the distances to the 60 dBu coverage contour of the proposed operation. These distances were determined by using Figure 1, F(50,50) FM propagation curves of Section 73.333 of the Commission's Rules, at an effective radiated power of 0.1995 kW, and the antenna elevation data shown in Table II. The average elevation between each 2-10 mile sector was used in determining the effective antenna height. All contour predictions were done in accordance with the provisions of Section 73.313 of the FCC's Rules and Regulations.

Table IV is a tabulation of all FM stations pertinent to an allocation study for Channel 201 located at the proposed site. The data and computations listed in this Table show that the proposed Channel 201 complies with Section 73.509 of the FCC Rules and Regulations, with the exception of WRCT's pending application for Construction Permit BPED-891108MA, Pittsburgh, Pennsylvania. WRCT's application BPED-891108MA is mutually exclusive with this instant application for a new non commercial FM Station. Its been determined that WRCT's application is a major change application. This instant proposal meets the requirements to the licensed facilities of WRCT.

Table V is a tabulation of all affected Channel 6 television stations pertinent to an allocation study for Channel 201 located at the proposed site.

Exhibit VB-1A is a copy of FAA Form which was filed with the Eastern Regional Office.

Exhibit VB-1B is a portion of a Sectional Aeronautical Chart with the proposed transmitter plotted thereon. This map shows the relationship of the site with respect to airports and airways.

Exhibit VB-2 is a sketch of the proposed antenna and supporting structure. All pertinent heights and elevation data are included.

Exhibit VB-3 is a statement which addresses the potential of intermodulation interference generated to radio and TV stations in the vicinity of the proposed site and the applicant's acceptance of the responsibility in this regard.

Exhibits VB-4 is a full scale 7.5 minute topographic quadrangle map (Murrysville, PA) showing the proposed transmitter site and a coordinate grid system and all official markings.

Exhibits VB-5 is a full 1/250,000 scale topographic map (Pittsbugh, PA) showing the proposed transmitter site, the 1.0 mV/m (60 dBu) coverage contour and all official markings.

Exhibit VB-6 is a map showing present and proposed coverage contours.

Exhibit VB-7 is a statement addressing compliance with the Canadian/U.S. FM agreement of 1947 provisions of the agreement of 1947 for allocation of FM broadcast stations on Channels 201-300 within 199 miles (320 km) of its border.

Exhibit VB-8 is a map showing an allocation study using the data listed in Tables I, III & IV of this report. As shown, Channel 201 complies with Section 73.509 of the Rules and Regulations.

Exhibit VB-9A is a statement addressing the procedures used to compute the interference area and showing compliance with Section 73.525 of the FCC Rules.

Exhibit VB-9B is a map showing the affected Channel 6 TV stations using the data from Tables II, III & V of this report.

Exhibit VB-9C is a section of a 7.5 minute topographic map (Murrysville, PA) showing the actual interference area.

Exhibit VB-10 is a Table showing computation in compliance with the formulas outlined in OST Bulletin No. 65.

Exhibit VB-11 contains all the information relating to the proposed directional antenna system.

Part 73 of the FCC's Rules and Regulations was amended, effective January 1, 1986 to implement the National Environmental Policy Act of 1969 (NEPA). The rule amendment identifies human exposure to RF radiation as an issue for explicit consideration when evaluating potential environmental effects of certain facilities regulated by the FCC. The proposed facility has been evaluated based on OST Bulletin No. 65 (October 1985), "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation" and complies with these standards. Exhibit VB-9 shows the computation associated with this study.

FCC Form 340 Section V-B is also being submitted with this report.

LECHMAN & JOHNSON, INC.

Lalin Fonseka
Telecommunications Consultant
May 16, 1991

TABLE I

FM SEPARATION STUDY

HE'S ALIVE, INC.
FURTHER AMENDMENT TO APPLICATION FOR A NEW
NON COMMERCIAL FM STATION
MURRYSVILLE, PENNSYLVANIA

Channel 201A 199.5 Watts (MAX) DA 74 Meters

| Designation | Channel | Nearest Allocation or Authorized Station | Separation (km) Actual | Required |
|---|---|---|---|---|
| Co-channel | 201A | WVBC, Bethany, WV | 76.8 | 2 / |
| 1st Adjacent | 202A | WRCT, Pittsburgh, PA | 19.1 | 2 / |
| 1st Adjacent | 202A | Apc., BPED-891108MA | 19.1 | 3 / |
| 2nd Adjacent | 203 | 1 / | | |
| 3rd Adjacent | 204 | 1 / | | |
| I.F. | 253 | 1 / | | |
| | 254 | 1 / | | |

1 / No stations close enough for consideration.

2 / Proposed facility complies with Section 73.509 of the FCC Rules.

3 / The subject proposal is mutually exclusive with the WRCT application.

TABLE II

TV SEPARATION STUDY

HE'S ALIVE, INC.
FURTHER AMENDMENT TO APPLICATION FOR A NEW
NON COMMERCIAL FM STATION
MURRYSVILLE, PENNSYLVANIA

Channel 201A 199.5 Watts (MAX) DA 74 Meters

| Affected Channel 6 Television Station | Separation (km) Actual | Required |
|---|---|---|
| WJAC, Johnstown, PA | 64 | 265 /1 |

/1 Stations to be considered in accordance with Section 73.525(a)(1) of the Rules and Regulations.

## TABLE III

## DISTANCE TO PROPOSED COVERAGE CONTOURS

**HE'S ALIVE, INC.**
**FURTHER AMENDMENT TO APPLICATION FOR A NEW**
**NON COMMERCIAL FM STATION**
**MURRYSVILLE, PENNSYLVANIA**

**Channel 201A  199.5 Watts (MAX) DA  74 Meters**

| Azimuth °True | Average Elevation 2-10 miles (meters A.M.S.L.)/1 | Effective Antenna Height Above Average Terrain (Meters) | Effective Radiated Power (dBk) | Distance to Proposed Contour (km) 60 dBu |
|---|---|---|---|---|
| 0 | 293 | 103 | -22.0 | 5.3 |
| 45 | 354 | 42 | -16.9 | 4.4 |
| 90 | 363 | 33 | -14.5 | 4.5 |
| 135 | 346 | 50 | -18.5 | 4.5 |
| 180 | 317 | 79 | -11.0 | 8.7 |
| 225 | 302 | 94 | -11.0 | 9.5 |
| 270 | 303 | 93 | -14.0 | 7.9 |
| 315 | 296 | 100 | -19.5 | 6.0 |

| | |
|---|---|
| Ground elevation at site A.M.S.L. | 365.8 |
| Average elevation of terrain (3-16 km) A.M.S.L. | 322.0 |
| Effective antenna height above average terrain | 73.8 |
| Effective antenna height above ground level | 30.0 |
| Effective antenna height A.M.S.L. | 395.8 |
| Overall tower height above ground level | 34.0 |
| Overall tower height A.M.S.L. | 399.8 |

Coordinates

North Latitude: 40° 28' 51"
West Longitude: 79° 43' 26"

**TABLE IV**

**FM ALLOCATION STUDY**

**HE'S ALIVE, INC.**
**FURTHER AMENDMENT TO APPLICATION FOR A NEW**
**NON COMMERCIAL FM STATION**
**MURRYSVILLE, PENNSYLVANIA**

**Channel 201A 199.5 Watts (MAX) DA 74 Meters**

Proposed Channel 201A
Murrysville, Pennsylvania
0.1995 (Max) DA kW ERP/74 Meters EAH
40° 28' 51" N/79° 43' 26"

| Bearing °True | EAH Meters | ERP (dBk) | Predicted Contours (km) 60 dBu 2/ | 54 dBu 3/ | 40 dBu 3/ |
|---|---|---|---|---|---|
| 0 | 103 | -22.0 | 5.3 | 7.4 | 17.1 |
| 45 | 42 | -16.9 | 4.4 | 6.3 | 14.1 |
| 90 | 33 | -14.5 | 4.5 | 6.4 | 14.4 |
| 135 | 50 | -18.5 | 4.5 | 6.3 | 14.1 |
| 180 | 79 | -11.0 | 8.7 | 12.1 | 28.7 |
| 225 | 94 | -11.0 | 9.5 | 13.2 | 31.6 |
| 270 | 93 | -14.0 | 7.9 | 11.1 | 26.3 |
| 315 | 100 | -19.5 | 6.0 | 8.4 | 19.8 |

Channel 201A, WVBC
Bethany, West Virginia
1.10 kW/125 m
40° 12' 58" N/80° 33' 31" W

| Bearing °True | EAH Meters | ERP (kW) | Predicted Contours (km) 60 dBu 2/ | 40 dBu 3/ |
|---|---|---|---|---|
| All | 125 | 1.10 | 21.3 | 65.9 |

**TABLE IV**
**(Continued)**

Channel 202A, WRCT
Pittsburgh, Pennsylvania
0.10 kW ERP/18 m EAH
40° 26' 39" N/79° 56' 37" W

| Bearing °True | EAH Meters 1/ | ERP (kW) | Predicted Contours (km) 60 dBu 1/ | 54 dBu 3/ |
|---|---|---|---|---|
| 0 | 18.6 | 0.10 | 5.8 | 8.0 |
| 45 | 58.3 | 0.10 | 7.9 | 11.2 |
| 90 | -3.5 | 0.10 | 5.8 | 8.0 |
| 135 | 48.7 | 0.10 | 7.2 | 10.3 |
| 180 | 11.2 | 0.10 | 5.8 | 8.0 |
| 225 | -16.8 | 0.10 | 5.8 | 8.0 |
| 270 | 41.2 | 0.10 | 6.4 | 9.4 |
| 315 | -11.0 | 0.10 | 5.8 | 8.0 |

Channel 202A
New Application, BPED-891108MA
Pittsburgh, Pennsylvania
1.50 kW ERP/16 m EAH
40° 26' 39" N/79° 56' 37" W

| Bearing °True | EAH Meters 1/ | ERP (kW) | Predicted Contours (km) 60 dBu 1/ | 54 dBu 3/ |
|---|---|---|---|---|
| 0 | 24.4 | 1.5 | 11.2 | 15.9 |
| 45 | 21.9 | 1.5 | 11.2 | 15.9 |
| 90 | -17.1 | 1.5 | 11.2 | 15.9 |
| 135 | 50.9 | 1.5 | 14.5 | 21.6 |
| 180 | 16.5 | 1.5 | 11.2 | 15.9 |
| 225 | 7.3 | 1.5 | 11.2 | 15.9 |
| 270 | 15.5 | 1.5 | 11.2 | 15.9 |
| 315 | 9.4 | 1.5 | 11.2 | 15.9 |

1/ Data taken from station records on file with the FCC.

2/ F(50,50) FM propagation curves used.

3/ F(50,10) FM propagation curves used.

## TABLE V

## CHANNEL 6 TV INTERFERENCE STUDY

**HE'S ALIVE, INC.**
**FURTHER AMENDMENT TO APPLICATION FOR A NEW**
**NON COMMERCIAL FM STATION**
**MURRYSVILLE, PENNSYLVANIA**

**Channel 201A  199.5 Watts (MAX) DA  74 Meters**

Channel 6, WJAC
Johnstown, PA
70.8 kW/341 m EAH
40° 22' 17"/78° 58' 58"

| Bearing °True | EAH 1/ feet (Meters) | ERP (dBk) | 47 dBu 1/ Miles (km) | 68 dBu 1/ Miles (km) |
|---|---|---|---|---|
| 225 | 552 (168.3) | 18.5 | 54 (86.9) | 25.5 (41.0) |
| 270 | 1576 (480.4) | 18.5 | 70.9 (114.1) | 38.6 (62.1) |
| 315 | 1361 (414.8) | 18.5 | 67.5 (108.6) | 36.5 (58.7) |

Channel 11, WPXI
Pittsburgh, Pennsylvania
316 kW/302 m EAH
40° 27' 28"/80° 00' 18"

| Bearing °True | EAH 1/ feet (Meters) | ERP (dBk) | 77 dBu 2/ Miles (km) |
|---|---|---|---|
| 0 | 908 (276.8) | 25.0 | 27.6 (44.4) |
| 45 | 986 (300.5) | 25.0 | 28.6 (46.0) |
| 90 | 976 (297.5) | 25.0 | 28.4 (45.7) |
| 135 | 1059 (322.8) | 25.0 | 29.4 (47.3) |
| 180 | 937 (285.6) | 25.0 | 28.0 (45.1) |
| 225 | 1070 (326.1) | 25.0 | 29.5 (47.5) |
| 270 | 1079 (328.9) | 25.0 | 29.7 (47.8) |
| 315 | 988 (301.2) | 25.0 | 28.6 (46.0) |

**Table V**
**(Continued)**

Proposed Channel 201A
Murrysville, Pennsylvania
0.1995 (Max) DA kW ERP/74 Meters EAH
40° 28' 51" N/79° 43' 26"

| Bearing °True | EAH (Meters) | ERP (dBk) | 79.1 dBu km 3 / |
|---|---|---|---|
| 0 | 103 | -22.0 | 1.9 |
| 10 | 78 | -22.0 | 1.9 |
| 20 | 59 | -22.0 | 1.9 |
| 30 | 48 | -20.0 | 2.4 |
| 40 | 36 | -18.0 | 3.1 |
| 45 | 42 | -16.9 | 1.5 |
| 50 | 48 | -18.0 | 1.5 |
| 60 | 44 | -16.2 | 1.6 |
| 70 | 32 | -14.2 | 1.5 |
| 80 | 38 | -15.8 | 1.5 |
| 90 | 33 | -14.5 | 1.5 |
| 100 | 38 | -15.8 | 1.5 |
| 110 | 36 | -15.2 | 1.5 |
| 120 | 42 | -16.9 | 1.5 |
| 130 | 52 | -18.7 | 1.5 |
| 135 | 50 | -18.5 | 1.5 |
| 140 | 55 | -19.0 | 1.5 |
| 150 | 59 | -17.0 | 1.8 |
| 160 | 71 | -15.0 | 2.1 |
| 170 | 68 | -13.0 | 2.3 |
| 180 | 79 | -11.0 | 2.8 |
| 225 | 94 | -11.0 | 3.0 |
| 270 | 93 | -14.0 | 2.5 |
| 315 | 100 | -19.5 | 1.8 |

| Bearing °True | Desired Signal Strength from Channel 6 WJAC (dBu) | U/D Ratio 4 / (dB) | Undesired Signal Strength from Proposed FM (50,10) (dBu) | Adjustment (dB) |
|---|---|---|---|---|
| ALL | 67.6 | 4.5 | 63.1 | 16 |

| Bearing °True | FM F(50,10) Interference Signal Strength (dBu) |
|---|---|
| ALL | 79.1 |

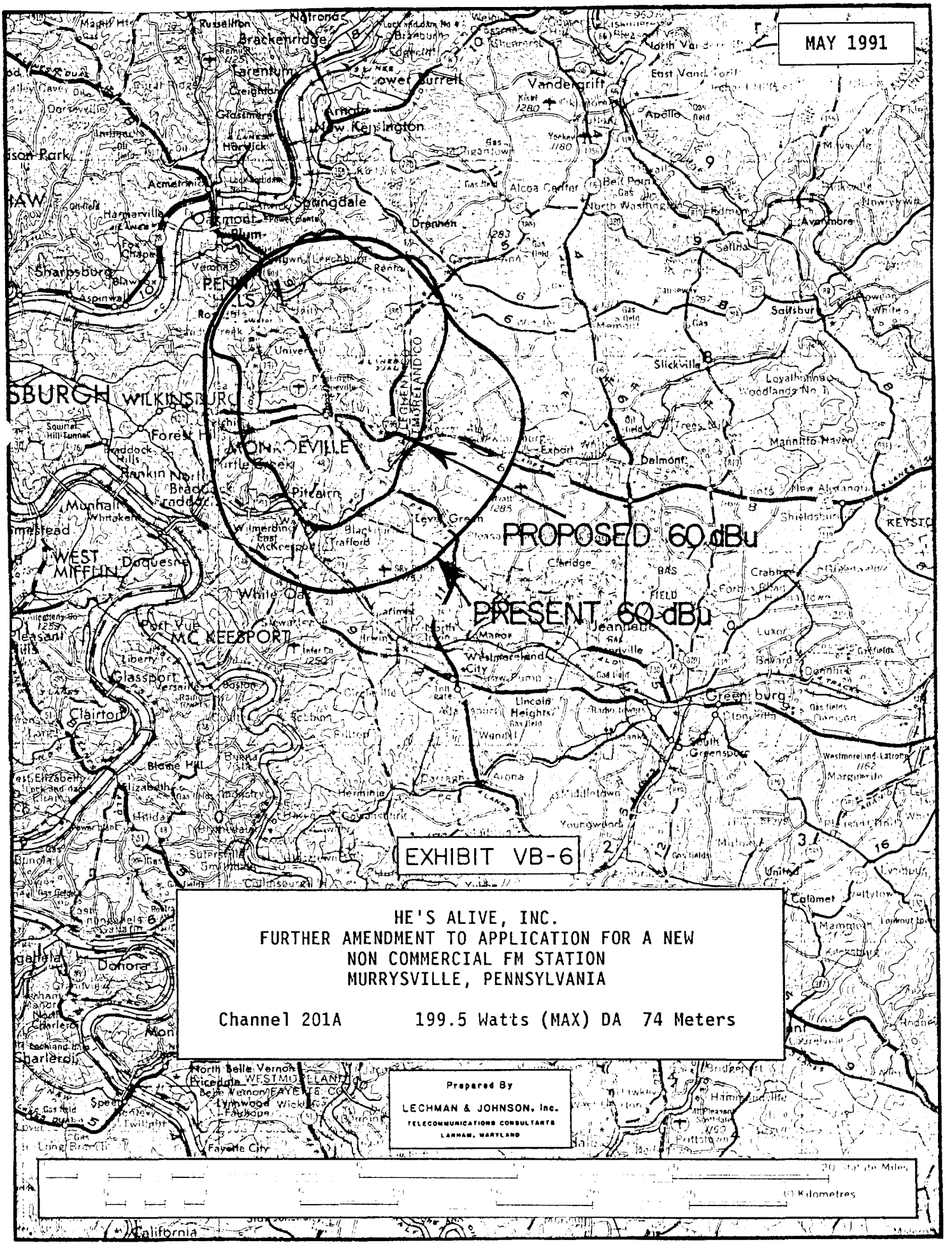
MAY 1991
PROPOSED 60 dBu
PRESENT 60 dBu
EXHIBIT VB-6
HE'S ALIVE, INC.
FURTHER AMENDMENT TO APPLICATION FOR A NEW
NON COMMERCIAL FM STATION
MURRYSVILLE, PENNSYLVANIA
Channel 201A
199.5 Watts (MAX) DA 74 Meters
Prepared By
LECHMAN & JOHNSON, Inc.
TELECOMMUNICATIONS CONSULTANTS
LANHAM, MARYLAND
Kilometres

EXHIBIT VB-7

ALLOCATIONS OF FM STATIONS UNDER THE
CANADA & UNITED STATES AGREEMENT

HE'S ALIVE, INC.
FURTHER AMENDMENT TO APPLICATION FOR A NEW
NON COMMERCIAL FM STATION
MURRYSVILLE, PENNSYLVANIA

**Channel 201A 199.5 Watts (MAX) DA 74 Meters**

The proposed FM station's transmitter site is located 219 km from the Canada/United States border. The proposed FM station operates on Channel 201A (88.1 MHz), with an effective radiated power (ERP) of 0.1995 (Max) DA kilowatts (kW), and an effective antenna height above average terrain (HAAT) of 74 meters. The maximum parameters and minimum separation for Class A station under the working agreement between United States and Canada are as follows:

Maximum Parameters

| | | |
|---|---|---|
| Class A | Effective Radiated Power | 3.0 kilowatts |
| | Antenna Height Above Average Terrain | 91.4 Meters |

Minimum Separation in kilometers

| | Co-ch | 200 | 400 | 600 |
|---|---|---|---|---|
| Class A | 144.8 | 80.5 | 40.25 | 32.2 |

The proposed FM station's effective radiated power (ERP) and effective antenna height above average terrain (HAAT) are less than the maximum parameter allowed. The proposed site is located a distance of 219 km from the Canada/U.S. border, which is greater in distance than the minimum separation requirement for any class of station. Therefore, this instant proposal satisfies all requirements under the working arrangement of the U.S./Canadian agreement of 1947.

MAY 1991

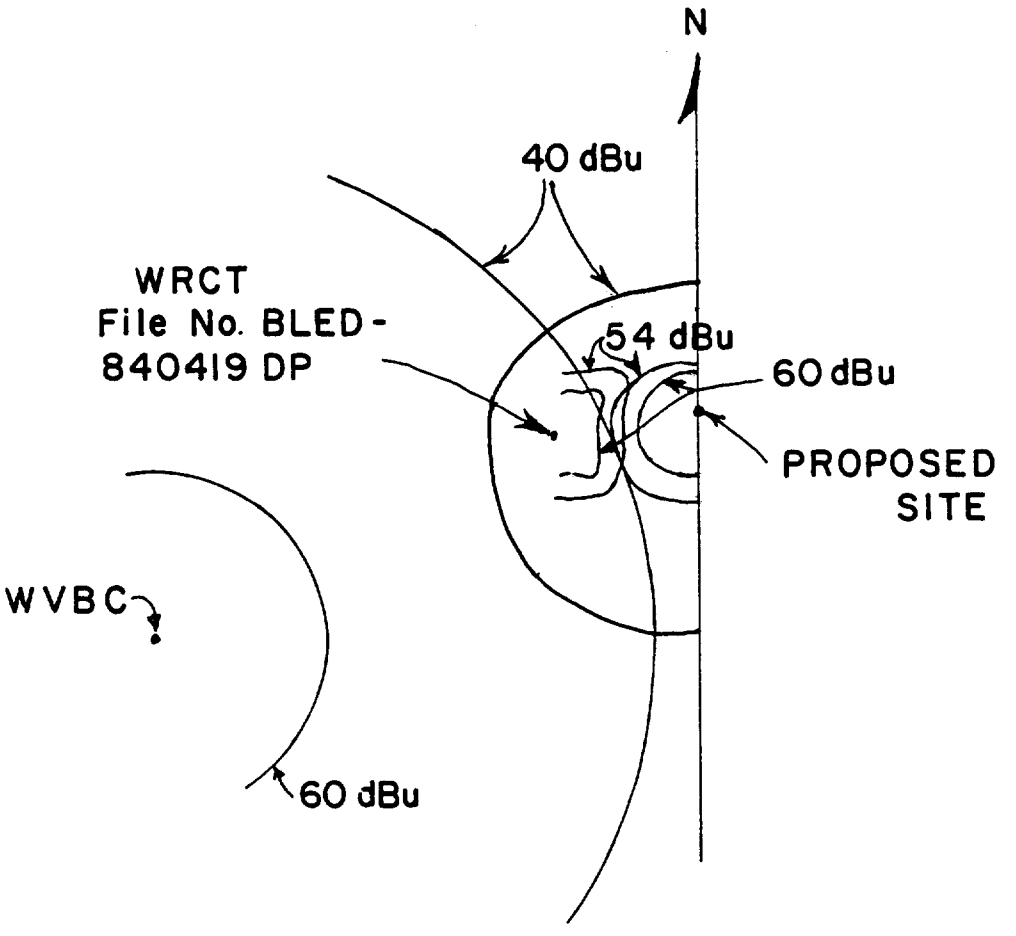


EXHIBIT VB-8

HE'S ALIVE, INC.
FURTHER AMENDMENT TO APPLICATION FOR A NEW
NON COMMERCIAL FM STATION
MURRYSVILLE, PENNSYLVANIA

Channel 201A 199.5 Watts (MAX) DA 74 Meters

Prepared By
LECHMAN & JOHNSON, Inc.
TELECOMMUNICATIONS CONSULTANTS
LANHAM, MARYLAND

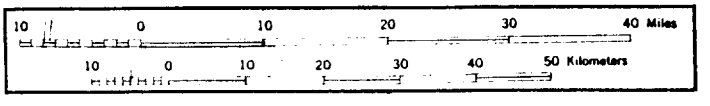

**EXHIBIT VB-9A**

**TV CHANNEL 6 INTERFERENCE STUDY**

**HE'S ALIVE, INC.**
**FURTHER AMENDMENT TO APPLICATION FOR A NEW**
**NON COMMERCIAL FM STATION**
**MURRYSVILLE, PENNSYLVANIA**

**Channel 201A 199.5 Watts (MAX) DA 74 Meters**

The nearest TV Channel 6 station to be evaluated under Section 73.525 of the Rules is WJAC-TV, Johnstown, Pennsylvania. WJAC-TV is located 64 km east of the proposed site as shown on Exhibit VB-9B. The proposed site is outside of WJAC's Grade A contour.

The interference area was computed as follows. The proposed site is located on the 67.6 dBu contour of the WJAC-TV. For the WJAC-TV's 67.6 field strength contour, the appropriate undesired-to-desired signal ratio for Channel 201 is -4.5 dB (U/D value is obtained from Section 73.599, Figure 1). For the WJAC-TV's 67.6 field strength contour, there is an associated FM F(50,10) interference signal strength of 63.1 dBu. An adjustment of 16 dB was added to the proposed FM station's interference contour in accordance with Section 73.525(e)(4)(i) to compensate for vertical polarity. These values are given in Table V. Exhibits VB-9B and VB-9C are maps showing the interference area drawn from the data contained in Table V.

Television Station WPXI, Pittsburgh, Pennsylvania is located 24 km west of the proposed FM site as shown in Exhibit VB-9B. WPXI is an NBC affiliate operating on Channel 11. WJAC also is an NBC affiliate. The predicted TV Channel 6 interference area is within the city grade contour (77 dBu) of WPXI and completely outside of WJAC-TV's ADI Market. In accordance with Section 73.525(e)(3)(iii), the population outside the Grade A contour of WJAC-TV and within the interference area that lies within the city grade contour of another station carrying the same programming material can be subtracted from the number of people predicted to receive interference because of network duplication. Therefore, the number of people predicted to receive interference is 2318[1] as shown on Exhibits VB-9B and VB-9C. Since the number of people within the interference area is less than 3000 people, this instant proposal is in compliance with Section 73.525 of the Rules and Regulations.

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[1] From 1980 Census of Population:
Number of People per House; Pennsylvania State:2.74, Allegheny County:2.63, Plum borough:3.20; Number of Houses in Actual Inteference Area:400 (1977) as shown in Exhibit VB-9C. Therefore, Number of people in Actual Interference Area is 3.2 * 400 = 1280. Number of people in Actual Inteference Area in 1980 is 2318 (Plum Borough Population: 21932 (1970); 25390 (1980); Change in population per year:346. Change in population for three years is 1038,Therefore total population in the actual interference area is 1280 + 1038 = 2318)

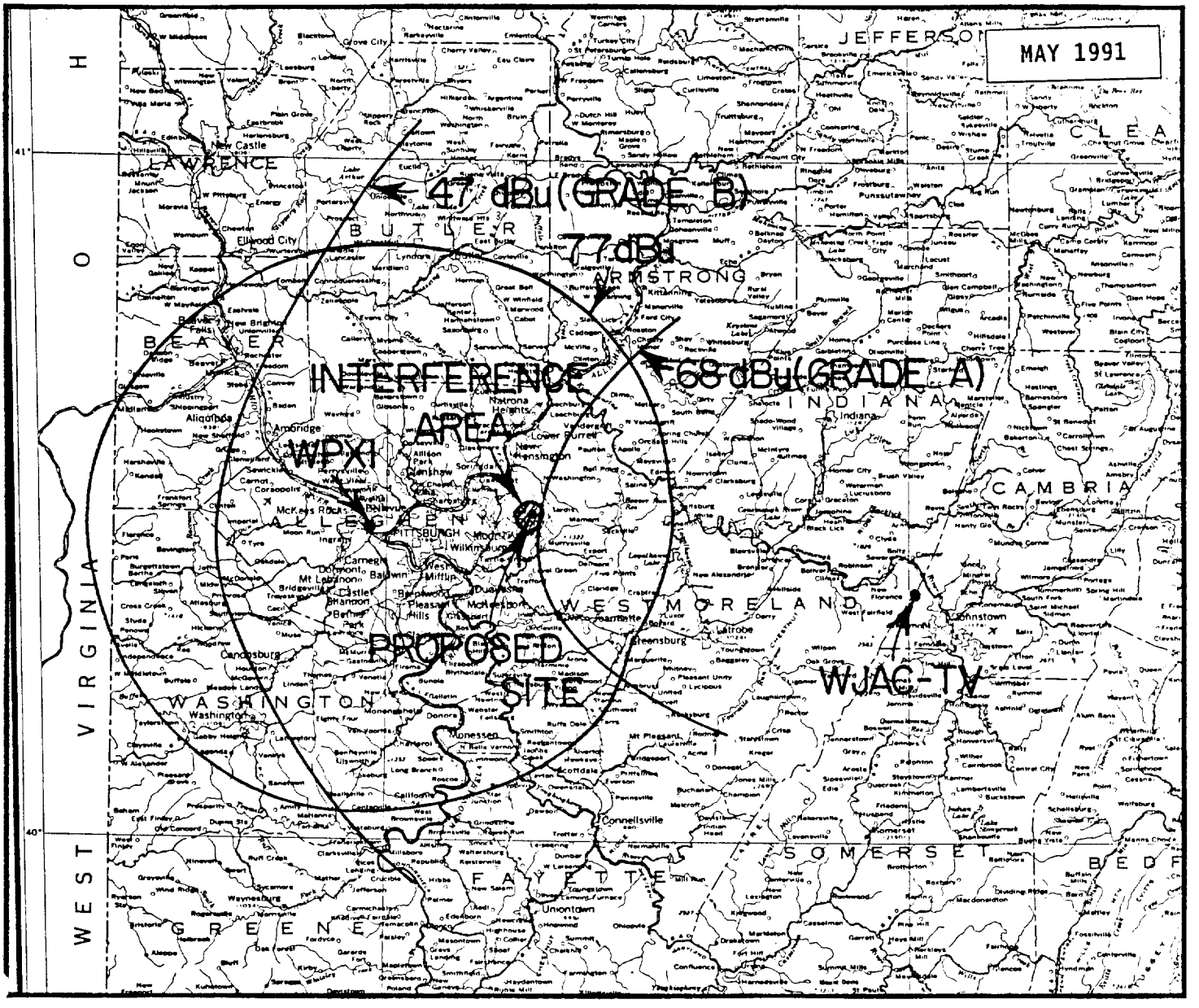


EXHIBIT VB-9B

HE'S ALIVE, INC.
FURTHER AMENDMENT TO APPLICATION FOR A NEW
NON COMMERCIAL FM STATION
MURRYSVILLE, PENNSYLVANIA

Channel 201A 199.5 Watts (MAX) DA 74 Meters

Prepared By

LECHMAN & JOHNSON, Inc.
TELECOMMUNICATIONS CONSULTANTS
LANHAM, MARYLAND

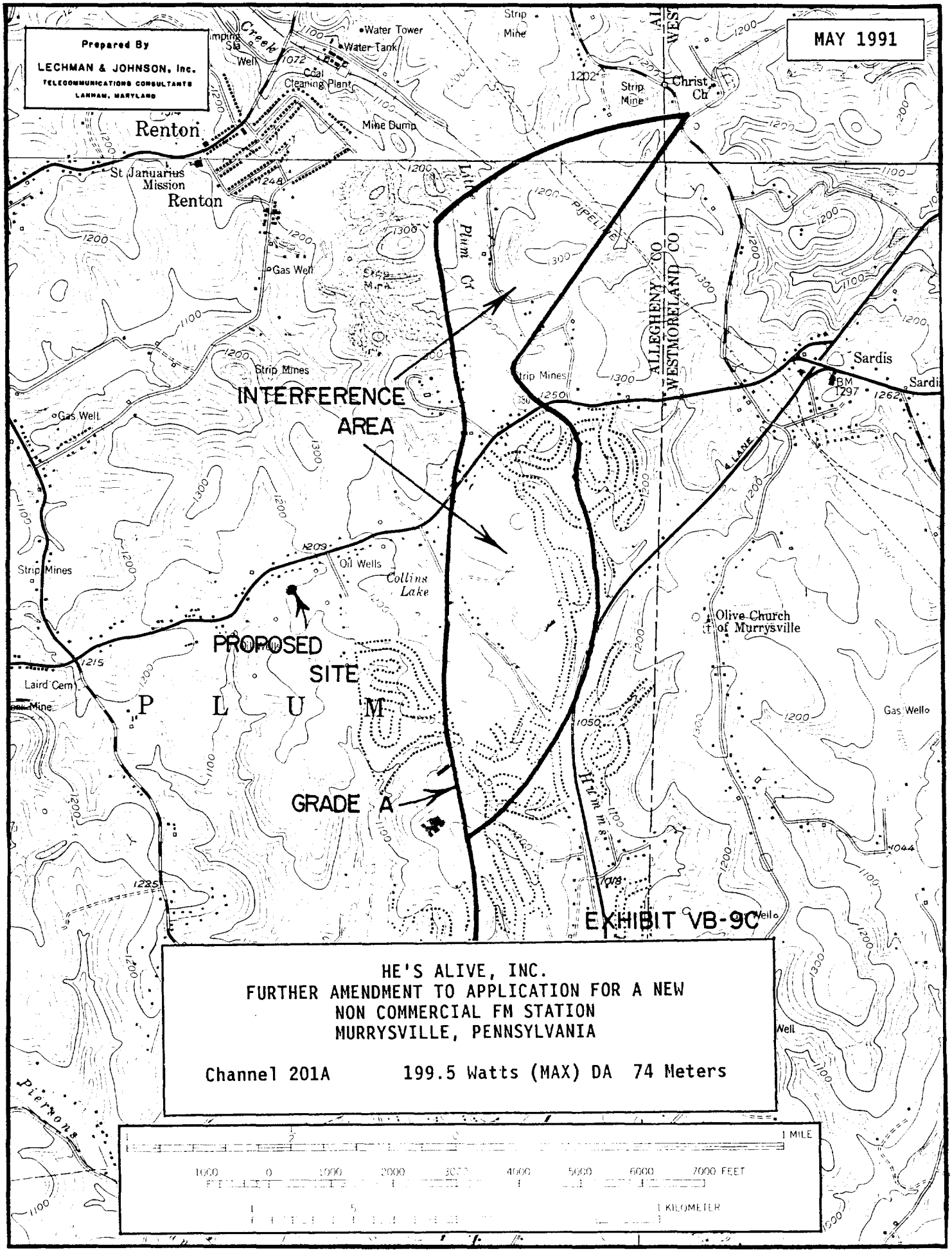
Prepared By
LECHMAN & JOHNSON, Inc.
TELECOMMUNICATIONS CONSULTANTS
LANHAM, MARYLAND
MAY 1991
Renton
St Januarius Mission
Renton
Water Tower
Water Tank
Coal Cleaning Plant
Mine Dump
Strip Mine
Christ Ch
Gas Well
Strip Mines
INTERFERENCE AREA
Gas Well
Strip Mines
Oil Wells
Collins Lake
PROPOSED SITE
P L U M
GRADE A
Laird Cem
Mine
Plum Cr
ALLEGHENY CO
WESTMORELAND CO
PIPELINE
Sardis
BM 1297
Olive Church of Murrysville
Gas Wells
Gas Well
EXHIBIT VB-9C
HE'S ALIVE, INC.
FURTHER AMENDMENT TO APPLICATION FOR A NEW
NON COMMERCIAL FM STATION
MURRYSVILLE, PENNSYLVANIA
Channel 201A
199.5 Watts (MAX) DA 74 Meters
1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 KILOMETER

**EXHIBIT VB-10**

**RADIATION LEVEL**

**HE'S ALIVE, INC.**
**FURTHER AMENDMENT TO APPLICATION FOR A NEW**
**NON COMMERCIAL FM STATION**
**MURRYSVILLE, PENNSYLVANIA**

**Channel 201A 199.5 Watts (MAX) DA 79.4 Meters**

The following calculations are performed in order to determine, whether the proposed FM station has significant environmental effect.

Computations

FM Facilities

The calculations to determine power densities ($mW/cm^2$) and power density level of all FM facilities are computed by using the following equation.

$$\text{Power density in } mW/cm^2 \ (S) = \frac{(0.64)\ (1.64)\ (\text{Total ERP in Watts})\ (1000 \text{ milliwatts/watt})}{\pi\ (\text{Center of Radiation in cm})^2}$$

For the proposed FM facility, the total ERP is 0.399 kW and the center of radiation is 30 m. Therefore, power density for the proposed FM facility is 0.015 $mW/cm^2$.

Conclusion

The computation of the power density for the proposed FM station was performed in accordance with OST Bulletin No. 65, Evaluating Compliance with FCC specified Guidelines for Human Exposure to Radiofrequency Radiation. The power density of the proposed FM facility is 0.015 $mW/cm^2$. Since this value is less than 1.0 $mw/cm^2$, the proposed facility is in compliance with OST Bulletin No. 65 and the ANSI standards.